REMARKS

Claims 19-40 are currently pending in the subject application. In this Amendment, claims 19, 21, 26, 27, 31 and 35 have been amended and claim 30 has been canceled. Reconsideration of the application in its current format is hereby requested.

In the Office action, the Examiner has rejected claims 19-40 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,129,938) to Hagenbucher in view of U.S. Patent No. 4,461,950 to Martincic et al. Applicant traverses this rejection for at least the reasons set forth below.

In rejecting the claims, the Examiner finds that "Hagenbucher discloses the instant claimed invention except for the specific material used to form the cooling ducts". Applicant submits that this is incorrect.

Once again, the Hagenbucher patent is directed to a transformer coil having cooling ducts interspaced within the windings of the coil. The cooling ducts are formed by placing metallic molds wrapped in cloth between alternating layers of filler material and windings and then encapsulating the transformer coil in a high dielectric resin, which saturates the filler material and the cloth around the molds. After the resin cures, the metallic molds are removed, leaving the cured resin-saturated cloth and filler material, which form a unitary cast laminate that defines the cooling ducts. (See column 2 line 54 through column 3 line 28). Thus, in the Hagenbucher patent, the cooling ducts are formed from the same resin as the resin encapsulating the windings and the filler material. Accordingly, the Hagenbucher patent fails to disclose (with emphasis added) a coil comprising cooling ducts "comprised of a ***first resin***" and a "***second resin*** encapsulating the layers", wherein "***said second resin being different than the first resin***", as is presently recited in the claims. This limitation of the claims cannot be ignored. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

The above-described formation of the unitary cast laminate defining the cooling ducts is recited in the claims of the Hagenbucher patent. Thus, the invention of the Hagenbucher patent is specifically directed to the formation of the cooling ducts using removable metallic molds to form the unitary cast laminate. In other words, the invention of the Hagenbucher patent *requires the resin of the ducts and the encapsulation to be the same.*

The Martincic et al. patent is directed to a transformer 10 having concentric inner and outer low voltage coils 12, 14 and a high voltage winding assembly 16. The winding assembly 16 comprises four axially spaced part coils 30, 32, 34 and 36, which are formed using a pair of support assemblies (40 or 81). The support assemblies (40 or 81) are specially constructed to allow the part coils 30, 32, 34, 36 to be closely spaced apart, while still providing a long creep path between them (see column 3, lines 24-28). In one embodiment, the support assemblies 81 each comprise metallic coil backup plates 80, 82, 84 secured to a duct forming member 72. The part coils 30, 32, 34, 36 are formed by winding conductive strip material around the pair of support assemblies 81 such that the backup plates 80, 82, 84 are disposed against and support the part coils 30, 32, 34, 36, while the duct forming members 72 are disposed inward from the part coils 30, 32, 34, 36.

Applicant submits that the Examiner has improperly combined the teachings of the Hagenbucher patent and the Martincic et al. patent to approximate the claimed invention. Pursuant to established case law and Patent Office policy (MPEP §2143), in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Applicant submits that the Examiner has failed to establish a prima facie case of obviousness at least for failing

to provide a proper suggestion/motivation to combine the Hagenbucher patent and the Martincic et al. patent. In this regard, it should be noted that the Federal Circuit finds proper motivation/suggestion to be very important and subject to close scrutiny, having stated: "*Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*". *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

With regard to the suggestion or motivation to combine, the Examiner states (with emphasis added) "It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the duct design of Martincic et al. in Hagenbucher *for the purpose of protecting the ducts during coil manufacture*". Applicant does not understand this statement and hereby respectfully requests clarification. For example, what ducts are being protected? Also, what are the ducts being protected from and how is the protection accomplished? In this regard, it should be noted that the ducts in Hagenbucher are not formed until *after the* coil is encapsulated and *after* the metal molds are removed.

In order to approximate the claimed invention, the method of forming ducts in Hagenbucher must be completely discarded. Instead of using removable molds to form the unitary cast laminate defining the ducts, the support assemblies 81 of the Martincic et al. patent must be inserted during the winding of the coil and left in place permanently. As set forth above, the invention of the Hagenbucher patent is specifically directed to the formation of the cooling ducts using removable metallic molds to form a unitary cast laminate. Thus, in order to make the combination suggested by the Examiner, the principle of operation of the invention of the Hagenbucher patent must be not just changed, but completely discarded. Such a complete rejection of the main teaching of a primary reference cannot be considered obvious. As held in *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959), if a proposed modification or combination of the prior art would change the principle of

operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In making its holding, the CPPA stated that the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

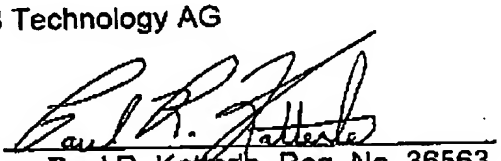
For at least the foregoing reasons, Applicant submits that the Hagenbucher patent and the Martincic et al. patent alone, or in combination, fail to show or suggest claims 1-40. Accordingly, Applicant hereby requests the Examiner to withdraw the rejection of claims 1-40 based on the Hagenbucher patent and the Martincic et al. patent.

Based on the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 050877.

Respectfully submitted,

ABB Technology AG

By: 

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